

TO: James L. App, City Manager
FROM: Doug Monn, Public Works Director
SUBJECT: Mobile Geographic Information System for Utility Maintenance
DATE: August 3, 2010

NEED: For the City Council to consider purchase of a mobile geographic information system to improve utility maintenance.

FACTS:

1. The City's water and wastewater system assets are valued at \$540 million and require continual maintenance. Accurate information about these assets (e.g., age, condition) is essential for cost-effective maintenance.
2. The City's existing geographic information system (GIS) database of water and wastewater assets is underutilized by field staff because it is not accessible in the field.
3. To address this deficiency and improve maintenance efficiency, the City requested proposals from specialized software firms to improve the mobility and utility of its GIS system. The mobile GIS system must enable City field crews to:
 - Quickly access digital maps of underground utilities,
 - View and update asset maintenance history,
 - Search the GIS database to display areas of a utility system that remain to be cleaned/serviced,
 - Bring up as-built drawings to assist in underground utility location,
 - Mark up the GIS database with a redline tool to improve accuracy,
 - Record inspection reports onto the GIS database to facilitate access by office staff,
 - Isolate main breaks to identify valves to close and affected customers to notify,
 - Record water valve testing data directly onto the GIS database, and
 - Automatically calculate fire flow test data.
4. Spatial Wave of Laguna Hills and iWater of Irvine submitted proposals. City staff found only iWater's services met the above requirements. Spatial Wave did not have well-developed wastewater tools. iWater's software (infraMap) is developed by field crews for field crews and is very user-friendly. iWater's fee for integration with the City's existing GIS, software licenses, software installation and configuration, and on-site training is \$37,643.
5. City Information Technology staff also requested and received the following quotes for hardware (laptop computers and vehicle mounts) necessary to utilize the mobile GIS system in three wastewater and two water maintenance vehicles:

CDWG/Drive Customs \$23,221
CDCE - \$26,182

6. The low bid by CDWG/Drive Customs is responsive and responsible.

ANALYSIS &

CONCLUSION: A mobile GIS system will reduce maintenance costs by approximately \$60,000 per year by optimizing man-hours, reducing vehicle miles traveled, and informing rehabilitation and replacement decisions. Maintenance cost savings will pay back the cost of the mobile GIS system within one year of implementation. It would be in the public's best interest to retain iWater's services and purchase required hardware from CDWG and Drive Customs.

POLICY

REFERENCE: Information Systems Strategic Plan, Sewer System Management Plan

FISCAL IMPACT: These expenditures would be funded by the Water and Sewer Enterprise Funds and would have no impact on the General Fund. The maintenance and operations budgets of the Water and Sewer Enterprise Funds are adequate for these expenditures. The system would reduce long-term maintenance costs through improved efficiency.

- OPTIONS:**
- a. Approve Resolution No. 10-xx to authorize the City Manager to award a contract to iWater in the amount of \$37,643 for mobile GIS software and services, and purchase of associated hardware from CDWG and Drive Customs in the amount of \$23,221.
 - b. Amend, modify, or reject the above option.

ATTACHMENT:

Resolution No. 10-xx

Prepared by: Matt Thompson, Wastewater Manager

RESOLUTION NO. 10-xxx

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASO ROBLES
APPROVING PURCHASE OF A UTILITY-SPECIALIZED MOBILE GEOGRAPHIC
INFORMATION SYSTEM

WHEREAS, the City's water and wastewater system assets are valued at \$540 million and require continual maintenance. Accurate information about these assets is essential for cost-effective maintenance.

WHEREAS, the City's existing geographic information system (GIS) database of water and wastewater assets is underutilized by field staff because it is not accessible in the field.

WHEREAS, the City requested proposals from specialized software firms to improve the mobility and utility of its GIS system.

WHEREAS, iWater of Irvine proposed services that best meet the City's requirements. iWater's fee for integration with the City's existing GIS, software (infraMap) licenses, software installation and configuration, and on-site training is \$37,643.

WHEREAS, the City also requested and received quotes for hardware (laptop computers and vehicle mounts) necessary to utilize the mobile GIS system in three wastewater and two water maintenance vehicles. CDWG submitted the lowest bid for computers and Drive Customs submitted the lowest bid for vehicle mounts. CDWG's and Drive Customs bids amount to \$23,221.

WHEREAS, the lowest bids by CDWG and Drive Customs are responsive and responsible.

THEREFORE, BE IT RESOLVED:

The City Council of the City of Paso Robles does hereby authorize the City Manager to award a contract to iWater in the amount of \$37,643 for mobile GIS software and services, and purchase of associated hardware from CDWG and Drive Customs in the amount of \$23,221.

PASSED AND ADOPTED by the City Council of the City of Paso Robles this 3rd day of August 2010 by the following votes:

AYES:
NOES:
ABSTAIN:
ABSENT:

Duane Picanco, Mayor

ATTEST:

Caryn Jackson, Deputy City Clerk